



TESTIMONY: HB 561

POSITION: Favorable

January 29, 2021

My name is Saul Kinter, Program Manager for Energy Initiatives, and I am appearing today on behalf of the District of Columbia Water and Sewer Authority, also known as DC Water. DC Water distributes drinking water and collects and treats wastewater for more than 700,000 residents and 17.8 million annual visitors in the District of Columbia. We also provide wholesale wastewater treatment services for 1.6 million people in Maryland and Virginia. To treat wastewater, DC Water operates the Blue Plains Advanced Wastewater Treatment Plant, the largest advanced wastewater treatment facility in the world.

I thank the Committee for the opportunity to testify on this important issue. I am here to bring your attention to two sources of renewable energy and recommend that Maryland recognize them as Tier 1 renewable sources in the Renewable Portfolio Standard, or RPS by passing House Bill 561. The first source is wastewater thermal energy, where wastewater is used for heating or cooling. The second is renewable steam, which is steam generated by burning biogas, a renewable fuel.

An untapped resource flows beneath the streets of every city: wastewater. The wastewater in our sewer systems is relatively cool in the summer and warm in the winter, and can therefore serve as a highly efficient source of thermal energy. The science behind this is identical in principle to the use of geothermal, an already recognized Tier 1 source of renewable energy. The technology to harness wastewater thermal is well-proven in Europe and Canada, and DC Water is confident that, when responsibly built, it poses no threat to the sewer system.

In Washington, DC, four systems are in operation that make use of wastewater for heating or cooling, including at the headquarters of the American Geophysical Union in Dupont Circle, where the building is entirely heated and cooled by wastewater drawn out of the adjacent sewer main. The Council of the District of Columbia revised its renewable portfolio standard to include wastewater thermal energy in 2016, and the Public Service Commission of the District of Columbia has certified at least three of these systems already.

The potential for this technology in Maryland is significant. Wastewater is present in large quantities in every city and town, and buildings use large amounts of natural gas and fossil fuel-derived electricity for heating and cooling. Recognition as a Tier 1 resource would enable building owners who heat and cool with wastewater thermal systems to generate and sell Renewable Energy Credits (or RECs) in the Maryland REC market. Since economic cost is presently a barrier to adoption, REC income would incentivize and speed adoption of the technology. As more buildings convert to wastewater thermal, less energy and especially less

fossil fuel will be needed to heat and cool them, ultimately contributing to the decarbonization of Maryland's building sector. Thus, passing HB 561 will help reduce greenhouse gas emissions and contribute to achieving Maryland's goal of 50% renewable energy by 2030.

In addition to wastewater thermal, HB 561 recognizes another valuable renewable energy source: biogas. Biogas is a proven renewable fuel. Biogas is generated from decomposition of organic products, usually at a landfill or wastewater treatment plant. It can be burned like natural gas, but due to its organic origin, it does not result in an increase in atmospheric greenhouse gases. Maryland has already recognized the benefits of biogas and it is classified as a Tier 1 resource in the Maryland RPS today.

Unfortunately, Maryland's existing RPS language is ambiguous. It does not clearly state whether energy from biogas is considered renewable regardless of the form in which it is used. As a result, the Maryland Public Service Commission has interpreted the RPS such that only electricity generated from biogas qualifies as Tier 1 renewable energy. Biogas can be used for purposes other than electricity, just like natural gas; indeed, in many places, it already is. For example, biogas can be used to generate mechanical energy and drive vehicles. Or it can be used to generate thermal energy in the form of hot water or steam.

When biogas is used for these purposes, it is no less and no more renewable than when used to generate electricity. It typically displaces an equivalent amount of fossil fuel – usually natural gas – regardless of the form of the energy. Therefore, a homeowner who buys biogas for their furnace should be just as eligible for Tier 1 status as a power plant that switches their fuel source. The statutory language should be clarified to state that energy generated from biogas in any useful form is Tier 1 renewable.

Ensuring that mechanical and thermal uses of biogas are eligible for certification as Tier 1 renewable in addition to the existing certification when used to generate electricity will incentivize the use of biogas to generate these forms of energy. Every wastewater treatment plant in the state of Maryland can install a digester and produce biogas; every landfill can capture it. But cost is often a barrier, and RECs are a valuable incentive. In cases where electricity generation is not a viable option, generation of heat could be. In others, an electric-only power plant might be able to generate more renewable energy as a combined heat and power facility. Income from RECs will push plant managers to invest in more digesters and to extract every useful therm, kWh, or Btu from each cubic foot of renewable fuel. In a time of climate crisis, we should not continue to watch this resource be less than fully utilized due to nothing more than a lack of clear legislative language.

House Bill 561 would add wastewater thermal energy to Maryland's RPS as a Tier 1 renewable source and make clear that any energy generated from biogas, not just electricity, qualifies as Tier 1. Adding these two powerful methods to Maryland's arsenal would help us fight climate change and achieve our goal of 50% renewable energy by 2030. Maryland has an opportunity to lead the states in recognizing these two valuable energy sources as Tier 1, and on behalf of DC Water, I urge the Maryland House of Delegates to do so by passing House Bill 561. Thank you very much for your time today.